

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (original): A method for repositioning teeth in a patient, said method comprising:
applying force to at least one tooth in a jaw of the patient, and
administering a tissue remodeling and/or an angiogenic substance(s) to the patient
to promote remodeling of periodontal tissue surrounding a root of the tooth.

Claim 2 (original): A method as in claim 1, wherein the substance(s) comprises relaxin or an analog or mimetic thereof.

Claim 3 (currently amended): A method as in claim 1, wherein the substance(s) comprises an angiogenic substance(s) selected from the group consisting of VEGF, bFGF, estrogen, nitrous oxide, naltrexone, and collagenase.

Claim 4 (original): A method as in claim 3, wherein the substance(s) further comprise relaxin or an analog or mimetic thereof.

Claim 5 (original): A method as in claim 1, wherein administering the substance(s) comprises administering the substance(s) before the force is applied.

Claim 6 (original): A method as in claim 1, wherein administering the substance(s) comprises administering the substance(s) while the force is being applied.

Claim 7 (original): A method as in claim 1, wherein administering the substance(s) comprises administering the substance(s) after the force has been applied.

Claim 8 (original): A method as in claim 1, wherein applying force comprises providing the patient with a removable appliance.

Claim 9 (currently amended): A method as in claim 8, wherein the removable appliance comprises a reservoir which releases the substance(s) to ~~the~~ a gingiva of the patient.

Claim 10 (original): A method as in claim 8, wherein the removable appliance is selected from the group consisting of positioners, aligners, and retainers.

Claim 11 (original): A method as in claim 1, wherein applying force comprises adjusting wire and bracket appliances on the teeth.

Claim 12 (original): A method as in claim 1, wherein applying force comprises positioning an appliance between one or more anchor teeth and one or more target teeth to be moved.

Claim 13 (currently amended): A method as in claim 12, wherein the substance(s) is ~~preferentially~~ applied to the periodontal tissue surrounding the one or more target teeth while the force is being applied to said target teeth.

Claim 14 (original): A method as in claim 1, wherein administering the substance(s) comprises administering the substance(s) systemically.

Claim 15 (original): A method as in claim 1, wherein administering the substance(s) comprises administering the substance(s) locally to the tissue surrounding the root of the tooth.

Claim 16 (currently amended): A method as in claim 15, wherein administering the substance(s) locally comprises topical delivery of the substance(s) on ~~the~~ a gingiva near the tooth.

Claim 17 (currently amended): A method as in claim ~~15~~ 16, wherein topical delivery comprises releasing the substance(s) from a controlled release device engaged against the gingiva.

Claim 18 (currently amended): A method as in claim ~~15~~ 16, wherein topical delivery comprises spreading a fluid substance(s) over the gingiva.

Claim 19 (currently amended): A method as in claim 15, wherein administering the substance(s) locally comprises injecting the substance(s) into the tissue surrounding the root.

Claim 20 (original): A method as in claim 1, further comprising applying an electric current to the periodontal tissue surrounding the root.

Claim 21 (original): A method as in claim 20, wherein the applied current has a current density in the range from 0.5 $\mu\text{A}/\text{mm}^2$ to 6 $\mu\text{A}/\text{mm}^2$.

Claim 22 (currently amended): An improved orthodontic treatment method of ~~the~~ a type wherein force is applied to at least one tooth in a patient jaw to reposition said tooth, wherein the improvement comprises administering a tissue remodeling and/or an angiogenic substance(s) to the patient before, during, or after the force has been applied.

Claim 23 (original): An improved method as in claim 22, wherein the substance(s) comprises relaxin or an analog or mimetic thereof.

Claim 24 (currently amended): An improved method as in claim 22, wherein the substance(s) comprises a an angiogenic substance(s) comprises relaxin or an analog or mimetic thereof selected from the group consisting of VEGF, bFGF, estrogen, nitrous oxide, naltrexone and collagenase.

Claim 25 (original): An improved method as in claim 24, wherein the substance(s) further comprise relaxin or an analog or mimetic thereof.

Claim 26 (original): An improved method as in claim 22, wherein administering the substance(s) comprises administering the substance(s) before the force is applied.

Claim 27 (original): An improved method as in claim 22, wherein administering the substance(s) comprises administering the substance(s) while the force is being applied.

Claim 28 (original): An improved method as in claim 22, wherein administering the substance(s) comprises administering the substance(s) after the force has been applied.

Claim 29 (original): A method as in claim 22, wherein applying force comprises providing the patient with a removable appliance.

Claim 30 (currently amended): A method as in claim 29, wherein the removable appliance comprises a reservoir which releases the substance(s) to the a gingiva of the patient.

Claim 31 (original): A method as in claim 29, wherein the removable appliance is selected from the group consisting of positioners, aligners, and retainers.

Claim 32 (currently amended): A method as in claim 22, wherein applying force comprises adjusting wire and bracket appliances on the ~~teeth~~ tooth.

Claim 33 (original): An improved method as in claim 22, wherein applying force comprises positioning an appliance between one or more anchor teeth and one or more target teeth to be moved.

Claim 34 (currently amended): An improved method as in claim 33, wherein the substance(s) is ~~preferentially~~ applied to ~~the~~ periodontal tissue surrounding the one or more target teeth while the force is being applied to said target teeth.

Claim 35 (original): An improved method as in claim 22, wherein administering the substance(s) comprises administering the substance(s) systemically.

Claim 36 (currently amended): An improved method as in claim 22, wherein administering the substance(s) comprises administering the substance(s) locally to the tissue surrounding ~~the~~ a root of the tooth.

Claim 37 (currently amended): An improved method as in claim 36, wherein administering the substance(s) locally comprises topical delivery of the substance(s) on ~~the~~ a gingiva near the tooth.

Claim 38 (currently amended): An improved method as in claim ~~36~~ 37, wherein topical delivery comprises releasing the substance(s) from a controlled release device engaged against the gingiva.

Claim 39 (currently amended): An improved method as in claim ~~36~~ 37, wherein topical delivery comprises spreading a fluid substance(s) over the gingiva.

Claim 40 (currently amended): An improved method as in claim 36, wherein administering the substance(s) locally comprises injecting the substance(s) into the tissue surrounding the root.

Claim 41 (currently amended): A method as in claim 22, further comprising applying an electric current to ~~the~~ periodontal tissue surrounding ~~the~~ a root.

Claim 42 (original): A method as in claim 41, wherein the applied current has a current density in the range from 0.5 $\mu\text{A}/\text{mm}^2$ to 6 $\mu\text{A}/\text{mm}^2$.

Claim 43 (original): An oral substance(s) delivery appliance comprising:
a structure mountable on or over at least a portion of a patient's gingiva; and
a tissue remodeling and/or an angiogenic substance(s) carried by the structure so that said substance(s) is released into at least a region of the gingiva when the structure is mounted on or over the gingiva.

Claim 44 (original): An oral delivery appliance as in claim 43, wherein the structure mounts over the gingiva of an entire jaw.

Claim 45 (original): An oral delivery appliance as in claim 43, wherein the structure mounts over the gingiva of less than the entire jaw.

Claim 46 (original): An oral delivery appliance as in claim 45, wherein the structure mounts over the gingiva adjacent the roots of from one to five individual teeth.

Claim 47 (original): An oral delivery appliance as in claim 43, wherein the structure comprises a patch.

Claim 48 (currently amended): An oral delivery appliance as in claim 43, wherein the structure comprises a shell which is removably placeable over ~~the~~ teeth.

Claim 49 (original): An oral delivery structure as in claim 43, wherein the structure comprises a porous structure which releases the substance(s) at a controlled rate over time.

Claim 50 (currently amended): An oral delivery structure as to claim 43, wherein the substance(s) is present in a matrix which degrades over time in ~~the~~ an oral environment.

Claim 51 (original): A topical oral composition, said composition comprising:
a carrier which may be topically applied to a patient's gingiva, and
a tissue remodeling and/or an angiogenic substance(s) in the carrier, wherein the substance(s) releases into gingival tissue when the composition is topically applied to the gingiva.

Claim 52 (original): A topical oral composition as in claim 49, wherein the carrier is a gel.

Claim 53 (original): A topical oral composition as in claim 49, wherein the substance(s) comprises relaxin or an analog or mimetic thereof.

Claim 54 (original): A topical oral composition as in claim 49, wherein the substance(s) comprises an angiogenic substance(s) selected from the group consisting of VEGF, bFGF, estrogen, nitrous oxide and naltrexone.

Claim 55 (currently amended): A topical oral composition as in claim ~~49~~ 54, wherein the substance(s) further comprise relaxin, a mimetic or an analog thereof.

Claim 56 (currently amended): A method for enhancing tooth mobility or stability, said method comprising administering a tissue remodeling and/or angiogenic substance(s) to a living host and applying force to said tooth.

Claim 57 (original): A method as in claim 56, wherein the host will be having, is having, or has had orthodontic treatment.

Claim 58 (original): A method as in claim 56, wherein the substance(s) comprises relaxin or an analog or mimetic thereof.

Claim 59 (original): A method as in claim 56, wherein the substance(s) comprises an angiogenic substance(s) selected from the group consisting of VEGF, bFGF, estrogen, nitrous oxide and naltrexone.

Claim 60 (currently amended): A method as in claim ~~54~~ 59, wherein the substance(s) further comprise relaxin or an analog or mimetic thereof.

Claim 61 (original): A method as in claim 56, wherein administering the substance(s) comprises administering the substance(s) before the force is applied.

Claim 62 (original): A method as in claim 56, wherein administering the substance(s) comprises administering the substance(s) while the force is being applied.

Claim 63 (original): A method as in claim 56, wherein administering the substance(s) comprises administering the substance(s) after the force has been applied.

Claim 64 (currently amended): A method as in claim 56, wherein applying force comprises providing the ~~patient~~ host with a removable appliance.

Claim 65 (currently amended): A method as in claim 64, wherein the removable appliance comprises a reservoir which releases the substance(s) to ~~the~~ a gingiva of the ~~patient~~ host.

Claim 66 (original): A method as in claim 64, wherein the removable appliance is selected from the group consisting of positioners, aligners, and retainers.

Claim 67 (currently amended): A method as in claim 56, wherein applying force comprises adjusting wire and bracket appliances on the ~~teeth~~ tooth.

Claim 68 (original): A method as in claim 56, wherein applying force comprises positioning an appliance between one or more anchor teeth and one or more target teeth to be moved.

Claim 69 (currently amended): A method as in claim 68, wherein the substance(s) is ~~preferentially~~ applied to ~~the~~ a periodontal tissue surrounding the one or more target teeth while the force is being applied to said target teeth.

Claim 70 (original): A method as in claim 56, wherein administering the substance(s) comprises administering the substance(s) systemically.

Claim 71 (currently amended): A method as in claim 56, wherein administering the substance(s) comprises administering the substance(s) locally to ~~the~~ a tissue surrounding ~~the~~ a root of the tooth.

Claim 72 (currently amended): A method as in claim 71, wherein administering the substance(s) locally comprises topical delivery of the substance(s) on ~~the~~ a gingiva near the tooth.

Claim 73 (currently amended): A method as in claim ~~71~~ 72, wherein topical delivery comprises releasing the substance(s) from a controlled release device engaged against the gingiva.

Claim 74 (currently amended): A method as in claim ~~71~~ 72, wherein topical delivery comprises spreading a fluid substance(s) over the gingiva.

Claim 75 (currently amended): A method as in claim 71, wherein administering the substance(s) locally comprises injecting the substance(s) into the tissue surrounding the root.

Claim 76 (currently amended): A method as in claim 56, further comprising applying an electric current to ~~the~~ a periodontal tissue surrounding ~~the~~ a root of said tooth.

Claim 77 (original): A method as in claim 76, wherein the applied current has a current density in the range from 0.5 $\mu\text{A}/\text{mm}^2$ to 6 $\mu\text{A}/\text{mm}^2$.

Claim 78 (currently amended): ~~Relaxin~~ A relaxin composition or an analog or mimetic thereof for use in the manufacture of a composition for topical delivery to ~~the~~ a gingiva to promote tooth mobility and/or stability.

Claim 79 (new): The method of claim 1, wherein said periodontal tissue is gingiva in said patient.

Claim 80 (new): The method of claim 1, wherein said method prevents relapse in said patient.

Claim 81 (new): A method for repositioning teeth in a patient, said method comprising:
applying force to at least one tooth in a jaw of the patient, and
administering a tissue remodeling and/or an angiogenic substance(s) to the patient
to promote remodeling of gingiva surrounding a root of the tooth.

Claim 82 (new): A method for preventing relapse in a patient, said method comprising:
applying force to at least one tooth in a jaw of the patient, and
administering a tissue remodeling and/or an angiogenic substance(s) to the patient
to promote remodeling of a tissue surrounding a root of the tooth, wherein said tissue is selected from the group consisting of periodontal tissue and gingiva.